

2979

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Book "C"
(Resurveyed Standard Lines)

BOOK 2979

FIELD NOTES

OF THE RETRACEMENT AND RESURVEY OF

The Gila and Salt River Meridian thru part of Ts. 1 N., bet. Rs. 1 E. & 1 W.
and the
Fifth Guide Meridian East thru Townships 10 North, bet. Rs. 20 & 21 E.

AND RESURVEY OF THE

Second Standard Parallel North thru R. 25 E. and parts of Rs. 22 & 24 E.
and the
6th Guide Meridian East, thru part of T. 9 N., bet. Rs. 24 and 25 E.

thru Townships 10 North,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

Sidney E. Blout,

In the capacity of U. S. Surveyor, under instructions dated December 16, 1914,
issued by the United States Surveyor General to govern surveys included in
Group No. 40, which were approved by the Commissioner of the General Land
Office, January 27, 1915.

Retracements and
Resurveys commenced March 11, 1915.

Retracements and
Resurveys completed August 24, 1915.

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Book "C."

See Special Index.

INDEX DIAGRAM.






Township _____, *Range* _____

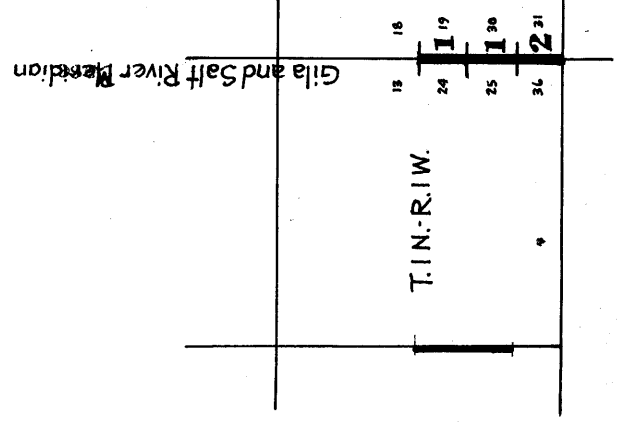
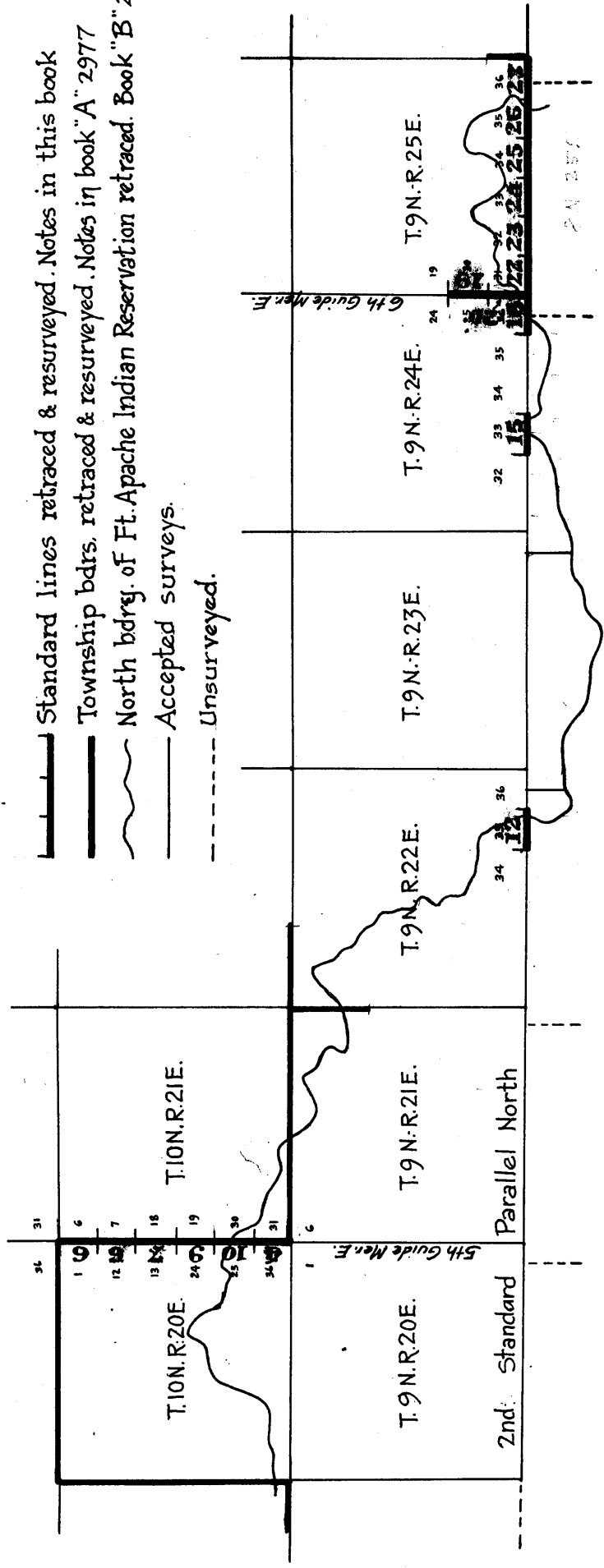
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Book "C" Group 40

BOOK 2979

-  Standard lines retraced & resurveyed. Notes in this book
-  Township bdrs. retraced & resurveyed. Notes in book "A" 2977
-  North bdry. of Ft. Apache Indian Reservation retraced. Book "B" 2978
-  Accepted surveys.
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1915

BOOK 2979

Retracement and Resurvey of G. & S.R. Meridian, thru. part of Tps. 1
North, between Ranges 1 East, and 1 West.

B

Chains.

- Retracement and resurvey commenced March 11, 1915, and executed with a Young and Sons' light mountain transit No. 10, described in Book "A."
- I examine the adjustments of the transit, and find them correct, and know from recent tests of the solar apparatus by comparing its indications resulting from solar observations, made during a.m. and p.m. hours with a meridian established by observations on Polaris that the instrument is in satisfactory adjustment.
- For last complete test of instrument, see Book "A."
- A 5-chain steel tape and clinometer are the instruments employed to determine all distances measured in this survey.
- I begin at the old cor. of secs. 19, 24, 25 and 30, which is a granite stone 8x6x6 ins. buried near the center of Public Highway about 10 ins. below the surface of the ground; latitude $33^{\circ}24'N.$; longitude, $112^{\circ}17'25''W.$
- March 11, 1915. At 10h. 40m., a.m., l.m.t., I set off $33^{\circ}24'N.$ on the lat. arc; $3^{\circ}54\frac{1}{2}'S.$ on the decl. arc, and determine a meridian with the solar at the above described corner.
- Thence,
South, on a random line, bet. secs. 25 and 30.
Over nearly level bottom land, along center of Public road.
- 40.00 Find no trace, after diligent search, of the old $\frac{1}{4}$ sec. cor. Therefore, continue line and measurement.
- 77.70 A point 3.00 chs. E. of the Meridian School house.
- 79.44 Fall 16 lks. W. of the old cor. of secs. 25, 30, 31 and 36, which is a granite stone 12x6x4 ins., buried 10 ins. below the surface of the ground at the intersection of Public roads, which bear E. and W. and N. and S. True course and dist. of line bet. secs. 25 and 30 is therefore $N.0^{\circ}7'W.$, 79.44 chs.
- March 11, 1915.
-
- March 15, 1915. I set off $33^{\circ}25'N.$, on the lat. arc; $2^{\circ}20'S.$ on the decl. arc, and determine a meridian with the solar at the old cor. of secs. 13, 18, 19 and 24, which is a cement post 6 ins. sq., with iron bolt in top, set at the intersection of Public roads, which bear E. and W. and N. and S., 14 ins. below the surface of the ground.
- Thence,
South, on a random line, bet. secs. 19 and 24.
Over rolling land, along center of public road.
- 40.00 I make a diligent search for the old $\frac{1}{4}$ sec. cor., which I fail to find; therefore, continue line and measurement.
- 40.08 A point in road in line with property line fence in sec. 24, brs. E. and W.
- 80.14 Fall 63 lks. W. of the old cor. of secs. 19, 24, 25, and 30, hereinbefore described.
True course and dist. of line bet. secs. 19 and 24 is therefore $N.0^{\circ}27'W.$, 80.14 chs.
- March 15, 1915.
-
- March 19, 1915. At 8h. 8m. a.m., l.m.t., I set off $33^{\circ}23\frac{1}{2}'N.$ on the lat. arc; $0^{\circ}47\frac{1}{2}'S.$ on the decl. arc, and determine a meridian with the solar at the old cor. of secs. 25, 30, 31 and 36, hereinbefore described.
- The Initial Monument of the Gila and Salt River Base and Meridian being plainly visible, I run for said monument $S.0^{\circ}7'E.$, on a random line, bet. secs. 31 and 36.
- 40.00 I make a diligent search for the old $\frac{1}{4}$ sec. cor., which I am unable to find; therefore, I continue my line and measurement $S.0^{\circ}7'E.$
- 47.95 To right bank of the Salt River at the junction with the Gila river.

Retracement and Resurvey of the G. and S. R. Meridian, thru.
2. part of Tps. 1 North, Ranges 1 East and 1 West.

Chains.

I determine the distance across the river to the Initial Monument by triangulation, as follows:
From this point measure a base line N.73°51'E., 10.45 chs. Set flag at Initial Monument.
From NE. end of base flag brs. S.15°49½'W. Included angles are 58°01½', 15°56½' and 106°02', the sum of which is 180°00'.
Dist. from 47.95 ch. sta. on Mer. to Initial Mon. is therefore obtained by
$$\frac{\text{Sine } 58^{\circ}01\frac{1}{2}' \times \text{base or } .84828 \times 10.45}{\text{Sine } 15^{\circ}56\frac{1}{2}'}$$

= 32.27 chs., which added to 47.95 chs. =

80.22 Intersect the Initial Monument of the Gila and Salt River Base and Meridian, which is a mound of stone 8 ft. high, 8 ft. diam. at base, and 4 ft. in diam., at the top, with a pole about 16 ft. long, set in the center, witnessed as described by the surveyor general.
True course and distance of line bet. secs. 31 and 36 is therefore N.0°7'W., 80.22 chs.

Thence,
N.0°7'W., on a true line, bet. secs. 31 and 36.

Descend N. slope of rocky hill, through greasewood brush undergrowth, 3 ft. high.

10.00 Foot of descent in the Gila River bottom about 200 ft. below the monument.

12.00 Left bank of the Gila river brs. N.80°W. and S.80°E.

31.82 Intersect the right bank of the Salt river 8 ft. high, brs. N.75°E. and S.75°W. Enter arrowweed and mesquite brush undergrowth about 5 ft. high.

40.11 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished ¼ sec. cor., marked on brass cap,

¼ S 36 in W.,
S 31 in E., and
1915 in S. half;

dig pits 18x18x12 ins., N. and S. of post 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.

50.00 Enter road, bears N. and S. 25°W. crosses the Gila river on rocky ford about 60.00 chs. west of line.

79.77 Irrigating ditch 6 lks. wide, course west.

80.22 Intersect the old cor. of secs. 25, 30, 31 and 36, hereinbefore described.

Land, rolling and hilly.

Soil, sandy and stony, 1st and 3rd rate.

No timber.

March 19, 1915.

Retracement and Resurvey of 5th. Guide Meridian East, through Township 10. North, between Ranges 20 and 21 East.

3.

Chains.

Retracement and Resurvey commenced June 10, 1915, and executed with a Young and Sons' light mountain transit No. 10, described in Book "A."

I examine the adjustments of the transit, and finding them to be correct, I know from recent tests of the solar apparatus by comparing its indications, resulting from solar observations made during a.m. and p.m. hours with a meridian established by observations on Polaris, that the instrument is in satisfactory adjustment.

A 5 chain steel tape and clinometer are the instruments employed to determine all distances measured in this retracement and resurvey.

RETRACEMENT.

- I begin at the reestablished cor. of Ts.10 and 11 N., Rs. 20 and 21 E., described in Book "A;" latitude, $34^{\circ}16'32''N.$; longitude, $110^{\circ}03'51''W.$
- June 10, 1915. At 1h.29m. p.m., l.m.t., I set off $34^{\circ}16\frac{1}{2}'N.$ on the lat.arc; $22^{\circ}59'N.$ on the decl.arc, and determine a meridian with the solar at this cor.
- Thence,
- 40.00 South, on a random line, bet. secs.1 and 6. No trace of the old $\frac{1}{4}$ sec.cor. can be found after diligent search; therefore, set temp. $\frac{1}{4}$ sec.cor., and continue line and measurement.
 - 80.72 Fall 35 lks.E.of the old cor.of secs.1,6,7 and 12, which is a decayed post 12 ins. long, marks almost obliterated. Alongside of post, I find a sandstone 12x10x10ins., above ground, marked with 1 notch on N. and 5 notches on S.edges. True course and dist.of line bet. secs. 1 and 6 is therefore S. $0^{\circ}15'W.$, 80.72 chs.
 - 40.16 From above described cor., South, on a random line, bet. secs.7 and 12. Fall 4 lks.W. of the old $\frac{1}{4}$ sec.cor., which is a sandstone 12x10x4 ins., above ground, loosely set, marked $\frac{1}{4}$ on W. face, and witnessed as described by the surveyor general. True course and dist. of N. $\frac{1}{2}$, bet. secs.7 and 12 is therefore S $0^{\circ}3'E.$, 40.16 chs.
 - 40.33 From old $\frac{1}{4}$ sec.cor. described above, South, on a random line on S. $\frac{1}{2}$, bet. secs.7 and 12. Fall 24 lks.W. of the old cor. of secs. 7,12,13 and 18, which is a sandstone 12x12x8 ins. above ground, loosely set, marked with 2 notches on N. and 4 notches on S. edges, and witnessed by three of the original bearing trees. True course and dist.of S. $\frac{1}{2}$, bet. secs.7 and 12 is therefore S $0^{\circ}20'E.$, 40.33 chs.
 - 40.34 From above described cor., South, on a random line, bet. secs.13 and 18. Fall 19 lks.W. of the old $\frac{1}{4}$ sec.cor., which is a sandstone 12x6x4 ins. above ground, loosely set marked $\frac{1}{4}$ on W. face, and witnessed by the original bearing trees, True course and dist. of N. $\frac{1}{2}$, bet. secs.13 and 18 is therefore S. $0^{\circ}16'E.$, 40.34 chs.
 - 40.26 From old $\frac{1}{4}$ sec.cor. described above, South, on a random line on S. $\frac{1}{2}$ bet. secs.13 and 18. Fall 34 lks.west of the old cor.of secs. 13,18,19 and 24, which is a sandstone 14x12x6 ins. above ground, loosely set marked with 3 notches on N.and S. edges, and witnessed by all of the original bearing trees: True course and dist. of S. $\frac{1}{2}$ bet. secs. 13 and 18 is

4. Retracement of the 5th Guide Meridian East, through T. 10N. bet. Rs 20 & 21 E
Chains.

therefore S. 0° 29' E., 40.26 chs.

June 10, 1915.

June 11, 1915. At 8h. 30m. a.m., l.m.t., I set off 34° 14' N. on the lat. arc; 23° 03' N. on the decl. arc, and determine a meridian with the solar at the old cor. of secs. 13, 18, 19 and 24, described above.

Thence,

- 40.46 South, on a random line, bet. secs. 19 and 24. Fall 25 lks. W. of the old $\frac{1}{4}$ sec. cor., which is a sandstone 12x8x4 ins. above ground, loosely set, marked $\frac{1}{4}$ on W. face, and witnessed by the original bearing trees: True course and dist. of N. $\frac{1}{2}$ bet. secs. 19 and 24 is therefore S. 0° 21' E. 40.46 chs.
- 40.52 From old $\frac{1}{4}$ sec. cor. described above, South, on a random line on S. $\frac{1}{2}$, bet. secs. 19 and 24. Fall 37 lks. W. of the old cor. of secs. 19, 24, 25 and 30, which is a sandstone 16x14x10 ins. above ground, loosely set, marked with 4 notches on N. and 2 notches on S. edges, and witnessed by all the original bearing trees. True course and dist. of S. $\frac{1}{2}$ bet. secs. 19 and 24 is therefore S. 0° 31' E., 40.52 chs.

- 40.12 From old cor. described above, South, on a random line, bet. secs. 25 and 30. Fall 16 lks. W. of the old $\frac{1}{4}$ sec. cor., which is a sandstone 16x12x8 ins., above ground, loosely set, marked $\frac{1}{4}$ on W. face, and witnessed by the original bearing trees. True course and dist. of N. $\frac{1}{2}$ bet. secs. 25 and 30 is therefore S. 0° 14' E., 40.12 chs.
- 40.26 From old $\frac{1}{4}$ sec. cor. described above, South, on a random line on S. $\frac{1}{2}$, bet. secs. 25 and 30. Fall 8 lks. W. of the old cor. of secs. 25, 30, 31 and 36, which is a sandstone 10x10x6 ins. above ground, marked and witnessed as described by the surveyor general. True course and dist. of S. $\frac{1}{2}$ bet. secs. 25 and 30 is therefore S. 0° 7' E., 40.26 chs.
- At this cor., I set off 23° 04' N. on the decl. arc, and at noon, apparent time June 11, 1915, observe the sun on the meridian, and obtain a reading of 34° 12' N. on the lat. arc.

- 27.70 From the above described cor., South, on a random line, bet. secs. 31 and 36. Descend SW. slope, 346 ft., over stony mountainous land, through heavy pine and juniper timber and brush. Dry ravine, 15 lks. wide at foot of descent in canyon, course N. 70° W.; ascend 95 ft.
- 40.00 Fall 1 lk. E. of the old $\frac{1}{4}$ sec. cor., which is a sandstone 12x12x10 ins. above ground, firmly set, marked $\frac{1}{4}$ on W. face, and witnessed by the original bearing trees. True course and dist. of N. $\frac{1}{2}$, bet. secs. 31 and 36 is therefore S. 0° 1' W., 40.00 chs.
- 6.25 From old $\frac{1}{4}$ sec. cor. described above, South, on a random line on S. $\frac{1}{2}$, bet. secs. 31 and 36. Top of spur, brs. N. 30° E. and S. 20° W.; descend 123 ft.
- 16.75 Dry ravine, 20 lks. wide in bottom of canyon, course S. 60° W.; ascend 32 ft.
- 39.92 Fall 4 lks. W. of the old cor. of Ts. 9 and 10 N., Rs. 20 and 21 E., which is a sandstone 10x10x10 ins. above ground, firmly set, marked as described by the surveyor general, from which the original bearing trees:
A juniper, 12 ins. in diam., brs. N. 51° E., 58 lks. dist., marked T 10 N R 21 E S 31 B T.
An oak, 10 ins. in diam., brs. S. 42° E., 61 lks. dist., marked T 9 N R 21 E S 6 B T.

Retracement 5th Guide Mer. E., thru T. 10 N., bet. Rs. 20 & 21 E. 5

Chains.

A pine, 12 ins. in diam., brs. S 68° W., 40 lks. dist., marked T 9 N R 20 E S 1 B T., and

A pine, 12 ins. in diam., brs. N. $22\frac{1}{2}^{\circ}$ W., 10 lks. dist., marked T 10 N R 20 E S 36 B T.

True course and dist. of S. $\frac{1}{2}$, bet. secs. 31 and 36 is therefore S. $0^{\circ}3'E.$, 39.92 chs.

June 11, 1915.

Before proceeding with the resurvey of the 5th Guide Meridian E., through T. 10 N., as hereinafter described, I examine the adjustments of the transit and test the solar apparatus by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian established by observations on Polaris, as follows:

June 12, 1915. At my camp, which is located near the center of sec. 4, T. 10 N., R. 20 E., approximate latitude $34^{\circ}16'N.$; longitude, $110^{\circ}7'30''W.$, I make an altitude observation on Polaris at lower culmination for latitude; I make two observations, one with the telescope in direct, and the other in reversed positions.

Local mean time of observation June 12,	8h. 8m. 30s.
Mean observed vertical angle	$33^{\circ}08\frac{1}{2}'$
Reduced latitude,	$34^{\circ}15'58\frac{1}{2}''$

June 12, 1915.

RESURVEY

June 13, 1915. At 2h. 10m. a.m., l.m.t., by my watch, which is correct local mean time, I observe Polaris at eastern elongation in accordance with the Manual of Instructions, and mark the direction thus determined by a tack driven in a stake set in the ground about 8 chs. N. of my instrument.

At 7h. 00m., a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ}23'$ to the west, and mark the meridian thus determined by a tally pin driven in a stake set firmly in the ground about 8 chs. N. of my instrument.

At 8h. 00m. a.m., l.m.t., I set off $34^{\circ}16'N.$ on the lat. arc; $23^{\circ}11'N.$ on the decl. arc, and determine a meridian with the solar, and mark a point thereof by a small nail driven in the stake already set about 8 chs. N. of my instrument; this point falls about $0\frac{1}{2}'E.$ of the meridian established by the Polaris observation.

At noon, apparent time, I set off $23^{\circ}11\frac{1}{2}'N.$ on the decl. arc; and observe the sun on the meridian; the resulting latitude is $34^{\circ}16'N.$, which agrees with the latitude determined by the stellar observation.

At 3h. 00m. p.m., l.m.t., I set off $34^{\circ}16'N.$ on the lat. arc; $23^{\circ}12'N.$ on the decl. arc, and determine a meridian with the solar, and mark a point thereof by a small nail, driven in the stake already set about 8 chs. N. of my instrument; this point falls $01'W.$ of the meridian established by the Polaris observation.

The solar apparatus by a.m. and p.m. observations, defines positions for meridians respectively about $0\frac{1}{2}'$ east and $1'W.$ of the meridian established by the Polaris observation; therefore, I conclude that the adjustments of the instrument are satisfactory.

June 13, 1915.

In the resurvey of the 5th Guide Meridian East, through the N. 5 miles of T. 10 N., bet. Rs. 20 and 21 E., I reestablish the $\frac{1}{4}$ sec. cor. of sec. 1 of T. 10 N., R. 20 E., a distance S. from Tp. cor. equal to 40 chs., minus the total

6. Resurvey of 5th. Guide Mer. E., thru part of T.10 N., bet. Rs. 20 & 21 E.

Chains.

southing of the resurveyed N. bdy. of same Tp., and reestablished sec. and $\frac{1}{4}$ sec. cors. at intervals of 40 chains thereafter to refer to secs. and $\frac{1}{4}$ secs. in T.10 N., R.20 E. only, and reestablish the old cors. found in the preceding retracement in their original positions to refer to secs. and $\frac{1}{4}$ secs. in T.10 N., R.21 E. only, the missing cors. being reestablished at distances from existing old cors. proportional to original distances. In the following notes, the distances given relate to the E. bdrs. of the secs. in T.10 N., R.20 E., the courses, however, changing at the sec. and $\frac{1}{4}$ sec. cors. of secs. in T.10 N., R.21 E., as per result of the preceding retracement.

June 14, 1915. At 7h. 14m. a.m., l.m.t., I set off $34^{\circ} 16\frac{1}{2}' N.$ on the lat. arc; $23^{\circ} 15' N.$ on the decl. arc, and determine a meridian with the solar at the reestablished cor. of Ts. 10 and 11 N., Rs. 20 and 21 E., described in Book "A."

Thence,

S. $0^{\circ} 15' W.$, on a true line, on E. bdy. of sec. 1.

Descend S slope, 123 ft., over stony hilly land, through scattering cedar and pinon pine timber.

15.35 Foot of descent; leave hilly land, brs. NW. and SE.; enter rolling, sandy valley land.

15.40 Dry ravine, 25 lks. wide, banks 3 ft. high, course N. $70^{\circ} E.$

35.57 Wire fence brs. N. and W., 10 lks. W. of intersection with fence, brs. N. and S. Enter cultivated land, brs. east 10 lks. and SW. about 40 chs.

37.75 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor. of sec. 1, marked on brass cap,

$\frac{1}{4}$ S 1 in W., and

1915 in S half; dig pits 18x18x12 ins., N.

and S. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

40.36 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor. of sec. 6, marked on brass cap,

$\frac{1}{4}$ S 6 in E., and

1915 in S half; dig pits 18x18x12 ins.,

N. and S. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, E. of cor.

77.75 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 1 and 12, marked on brass cap,

T 10 N in N.,

R 21 E, S 6, S 7 in E., and

1915 in S half;

S 1 in NW., and

S 12, R 20 E in SW. quadrant.

Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land, rolling and hilly.

Soil of N. 15 chs., stony clay loam, 4 to 6 ins. deep, on dry stony, clay subsoil; south 62 chs., rich, dry sandy

loam, 12 ins. deep on sandy and gravelly clay subsoil.

Timber, scattering cedar and pinon pine.

From the reestablished cor. of secs. 1 and 12,

S. $0^{\circ} 15' W.$, on a true line, on E. bdy. of sec. 12.

Over nearly level sandy land, along wire fence in cultivated field.

2.97 (40.36 chs. S. $0^{\circ} 15' W.$ of $\frac{1}{4}$ sec. cor. of sec. 6) intersect the old cor. of secs. 1, 6, 7 and 12, hereinbefore described which I destroy, and reestablish in same place as follows:

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in

Resurvey of 5th Guide Meridian East thru part of T. 10N bet. 20&21E. 7

Chains.	
	the ground for cor. of secs. 6 and 7, marked on brass cap, T 10 N in N., 1915 in S., and R 20 E S 1, S 12 in W. half; S 6 in NE., and S 7 R 21 E in SE. quadrant; raise a mound of stone 2 ft. base, 1½ ft. high, E. of cor. Pits impracticable. Thence S. 0° 3' E., continuing measurement, 3.00 Wire fence brs. E and W.; leave cultivated land. 5.28 Road from Pinedale to Linden, Arizona, brs. N. 70° W. and S. 70° E. 15.00 Enter juniper and pine timber; brs. E and W. 25.00 Road to the Hopen ranch, brs. N. 50° W. and S. 50° E. 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished ¼ sec. cor. of sec. 12, marked on brass cap, ¼ S 12 in W., and 1915 in S. half; from which, A juniper, 8 ins. in diam., brs. N. 47¼° W., 38 lks. dist., which I mark ¼ S 12 B T., and A juniper, 40 ins. in diam., brs. S. 43° W., 208 lks. dist., which I mark ¼ S 12 B T. From this cor., the unaccepted ¼ sec. cor. set by Deputy Charles E. Perkins, under contract No. 40, brs. N. 2½° W., 124 lks. dist., which I destroy, and marks on bearing trees to same. 43.13 (40.16 chs. S. 0° 3' E. of cor. of secs. 6 and 7) intersect the old ¼ sec. cor. hereinbefore described, which I de- stroy, and reestablish in the same place as follows: Reset the same stone 8 ins. in the ground for ¼ sec. cor. of sec. 7, marked ¼ S 7 in E. face, from which the orig- inal bearing trees, A cedar, 12 ins. in diam., brs. N. 45½° E., 74 lks. dist., marked ¼ S 7 B T., and An oak, 8 ins. in diam., brs. S. 87½° W., 96 lks. dist., marked ¼ S B T. Thence, S. 0° 20' E., continuing measurement. 80.00 Ascend gradually over N. slope, over low hills. Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 12 and 13, marked on brass cap, T 10 N in N., R 21 E, S 7, S 18 in E., and 1915 in S half; S 12 in NW., and S 13 in SW. quadrant, from which A juniper, 8 ins. in diam., brs. S. 48½° W., 116 lks. dist., which I mark T 10 N R 20 E S 13 B T. A pine, 18 ins. in diam., brs. N. 23¼° W., 115 lks. dist., which I mark T 10 N R 20 E S 12 B T. From this cor., the unaccepted cor. of same secs. set by Deputy Charles E. Perkins, under contract No. 40, brs. N. 1° 30' E., 100 lks. dist., which I destroy, and marks on bearing trees to same. Land, rolling and hilly. Soil, sandy clay loam, 12 to 14 ins. deep on dry clay sub- soil. Timber, oak, juniper and cedar and pine.
	From reestablished cor. of secs. 12 and 13, S 0° 20' E., on a true line, on E. bdy. of sec. 13. Over hilly land, ascending through scattering oak, juniper and cedar and heavy pine timber. .48 Top of ridge, 10 ft. above cor., brs. N. 60° E. and S. 60° W.; descend S. slope, 25 ft. 1.00 Dry ravine, 10 lks. wide, course N. 70° E.; ascend N. slope of ridge, 10 ft. 3.47 (40.33 chs. S. 0° 20' E. of ¼ sec. cor. of sec. 7), intersect

8. Resurvey of 5th Guide Mer. E. thru part of T. 10N. bet. Rs. 20 & 21E.

Chains.

the old cor. of secs. 7, 12, 13 and 18, hereinbefore described, which I destroy, and reestablish in same place as follows:

Reset the same stone, 10 mins. in the ground for cor. of secs. 7 and 18, marked with 2 notches on N. and 4 notches on S edges, from which the original bearing trees,

A pine, 12 ins. in diam., brs. N. $55\frac{1}{2}^{\circ}$ E., 115 lks. dist., marked T 10 N R 21 E S 7 B T.

A pine, 12 ins. in diam., brs. S 71° E., 65 lks. dist., marked T 10 N R 21 E S 18 B T., and

A juniper, 10 ins. in diam., brs. S $55\frac{1}{2}^{\circ}$ W., 50 lks. dist., marked T 10 N R 20 E S B T.

Thence,

S $0^{\circ} 16'$ E., continuing measurement.

35.00 Top of ridge, 23 ft. above cor., brs. N. 60° E. and S. 60° W.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., of sec. 13, marked on brass cap,

$\frac{1}{4}$ S 13 in W., and

1915 in S. half; from which

A pine, 12 ins. in diam., brs. N. $69\frac{1}{2}^{\circ}$ W., 66 lks. dist., marked $\frac{1}{4}$ S 13 B T., and

A pine, 10 ins. in diam., brs. S $38\frac{3}{4}^{\circ}$ W., 89 lks. dist., marked $\frac{1}{4}$ S 13 B T.

From this cor., the unaccepted $\frac{1}{4}$ sec. cor. set by Deputy Charles E. Perkins, under contract No. 40, brs. N. $3^{\circ} 00'$ E., 95 lks. dist., which I destroy, and marks on bearing trees to same.

43.81 (40.34 chs. S $0^{\circ} 16'$ E. of cor. of secs. 7 and 18) intersect the old $\frac{1}{4}$ sec. cor. hereinbefore described, which I destroy, and reestablish in same place as follows:

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. of sec. 18, marked on brass cap,

$\frac{1}{4}$ S 18 in E., and

1915 in S. half; from which the original

bearing trees,

A pine, 12 ins. in diam., brs. S $71\frac{1}{2}^{\circ}$ E., 48 lks. dist., marked $\frac{1}{4}$ S 18 B T., and

A pine, 16 ins. in diam., brs. S $52\frac{1}{2}^{\circ}$ W., 87 lks. dist., marked $\frac{1}{4}$ S B T.

Thence,

S $0^{\circ} 29'$ E., continuing measurement.

47.50 Dry ravine, 15 lks. wide, course east; ascend N. slope, 42 ft.

54.57 Top of ridge, brs. E. and W.; descend S. slope, 50 ft.

57.50 Foot of descent; enter flat brs. N. and S.

61.67 Road from the Hopen ranch to Pinedale, brs. N. 20° E. and S. 29° W.

67.20 Dry ravine, 30 lks. wide, 8 ft. deep, course S. 30° E.; ascend 50 ft.

75.70 Wood road brs. N. 70° W. and S. 70° E.

75.80 Leave flat, brs. E. and W.; ascend N. slope of ridge, 30 ft.

79.80 Top of ridge, 30 ft. above flat, brs. N. 50° E. and S. 50° W.; descend S. slope 29 ft.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 13 and 24, marked on brass cap,

T 10 N in N.,

R 21 E, S 18; S 19 in E., and

1915 in S. half;

S 13 in NW., and

R 20 E, S 24 in SW. quadrant; from which

A pine, 14 ins. in diam., brs. N. $41\frac{3}{4}^{\circ}$ W., 48 lks. dist., which I mark T 10 N R 20 E S 13 B T., and

A pine, 18 ins. in diam., brs. S $26\frac{1}{2}^{\circ}$ W., 98 lks. dist., which I mark T 10 N R 20 E S 24 B T.

From this cor., the unaccepted cor. of same secs. set by Deputy Charles E. Perkins, under Contract No. 40, brs. N. $2^{\circ} 30'$ E., 98 lks. dist., which I destroy, and marks on bearing trees to same.

Land, rolling and hilly.

Resurvey of 5th Guide Mer. E. thru T. 10 N. bet. Rs. 20 and 21 East. 9.

Chains.

Soil, dry, sandy loam, about 15 ins. deep on stony clay subsoil.
Timber, juniper, cedar and pine.

-
- 4.07 From reestablished cor. of secs. 13 and 24, S. $0^{\circ} 29' E.$ on a true line, on E. bdy. of sec. 24. Descend over stony, hilly land, through juniper, oak and pine timber and brush.
(40.26 chs. S $0^{\circ} 29' E.$ of $\frac{1}{4}$ sec. cor. of sec. 18) Intersect the old cor. of secs. 13, 18, 19 and 24, hereinbefore described. This cor. being in a dilapidated condition, I reestablish it in its original position as follows:
Reset the same stone, 12 ins. in the ground for cor. of secs. 18 and 19, from which the original bearing trees,
A pine, 12 ins. in diam., brs. N. $43\frac{1}{2}^{\circ} E.$, 63 lks. dist., marked T 10 N R 21 E S 18 B T.
A pine, 16 ins. in diam., brs. S. $48^{\circ} E.$, 58 lks. dist., marked T 10 N R 21 E S 19 B T.
A pine, 14 ins. in diam., brs. S. $76^{\circ} W.$, 105 lks. dist., marked T 10 N R 20 E S B T., and
A pine, 12 ins. in diam., brs. N. $48^{\circ} W.$, 61 lks. dist., marked T 10 N R 20 E S B T.
At this cor., I set off $23^{\circ} 15' N.$, on the decl. arc, and at noon, apparent time June 14, 1915, observe the sun on the meridian, the resulting latitude being $34^{\circ} 14' N.$
Thence,
S $0^{\circ} 21' E.$, continuing measurement.
15.50 Dry ravine, 5 lks. wide, course N. $60^{\circ} E.$; ascend 27 ft.
35.07 Top of ridge, brs. E. and W.; descend 20 ft.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished $\frac{1}{4}$ sec. cor. of sec. 24, marked on brass cap,
 $\frac{1}{4}$ S 24 in W., and
1915 in S. half; from which,
A pine, 12 ins. in diam., brs. S. $70\frac{1}{2}^{\circ} W.$, 58 lks. dist., which I mark $\frac{1}{4}$ S 24 B T., and
A pine, 28 ins. in diam., brs. N. $46\frac{1}{2}^{\circ} W.$, 113 lks. dist., which I mark $\frac{1}{4}$ S 24 B T.
From this cor., the unaccepted $\frac{1}{4}$ sec. cor. set by Deputy Charles E. Perkins, under contract No. 40, brs. N. $0^{\circ} 25' E.$, 125 lks. dist., which I destroy, and marks on the bearing trees to same.
44.53 (40.46 chs. S $0^{\circ} 21' E.$ of cor. of secs. 18 and 19). Intersect the old $\frac{1}{4}$ sec. cor. hereinbefore described, which I destroy, and reestablish in the same place as follows:
Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., of sec. 19, marked on brass cap,
 $\frac{1}{4}$ S 19 in E., and
1915 in S. half; from which the original bearing trees,
An oak, 14 ins. in diam., brs. N. $39^{\circ} E.$, 77 lks. dist., marked $\frac{1}{4}$ S 19 B T., and
A pine, 20 ins. in diam., brs. N. $73\frac{1}{2}^{\circ} W.$, 60 lks. dist., marked $\frac{1}{4}$ S B T.
Thence,
S $0^{\circ} 31' E.$, continuing measurement.
46.00 Dry ravine, 5 lks. wide, course N. $60^{\circ} E.$; ascend NE. slope, 27 ft.
75.50 Top of ridge, brs. E. and W.; descend 20 ft.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 24 and 25, marked on brass cap,
T 10 N in N.,
R 21 E S 19, S 30 in E., and
1915 in S. half;
S 24 in NW., and
S 25, R 20 E in SW. quadrant; from which
A pine, 14 ins. in diam., brs. N. $40\frac{1}{2}^{\circ} W.$, 52 lks. dist., which I mark T 10 N R 20 E S 24 B T.

10. Resurvey 5th Guide Mer. E. thru part of T. 10 N. bet. Rs. 20 & 21 E.

Chains.

- A pine, 16 ins. in diam., brs. S. $42\frac{1}{2}^{\circ}$ W., 126 lks. dist., which I mark T 10 N R 20 E S 25 B T. From this cor., the unaccepted cor. of same secs. set by Deputy Charles E. Perkins, under Contract No. 40, brs. N. $2^{\circ}10'$ E., 126 lks. dist., which I destroy, and marks on bearing trees to same.
- Land, hilly, ridges steep, washed on slopes, rocky.
Soil, poor dry stony clay loam, 2 to 8 ins. deep on dry clay and sand stone subsoil.
Timber, oak, juniper, cedar and pine.
-
- From reestablished cor. of secs. 24 and 25, S. $0^{\circ}31'$ E., on a true line, on E. bdy. of sec. 25. Ascend NW. slope, over rolling, stony, mountainous land, through heavy pine timber.
- 5.05 (40.52 chs. S. $0^{\circ}31'$ E. of $\frac{1}{4}$ sec. cor. of sec. 19) Intersect the old cor. of secs. 19, 24, 25 and 30, hereinbefore described, which I reestablish in same place, as follows: Reset the same stone, 12 ins. in the ground for cor. of secs. 19 and 30, from which the original bearing trees,
- A pine, 22 ins. in diam., brs. N. $77\frac{1}{2}^{\circ}$ E., 56 lks. dist., marked T 10 N R 21 E S 19 B T.
An oak, 12 ins. in diam., brs. S. $62\frac{3}{4}^{\circ}$ E., 91 lks. dist., marked T 10 N R 21 E S 30 B T.
A pine, 16 ins. in diam., brs. S. $60\frac{1}{2}^{\circ}$ W., 98 lks. dist., marked T 10 N R 20 E S B T., and
An oak, 10 ins. in diam., brs. N. $8\frac{1}{2}^{\circ}$ W., 31 lks. dist., marked T 10 N R 20 E S B T.
- Thence,
35.87 S $0^{\circ}14'$ E., continuing measurement. Wire fence along N. bdy. of the Fort Apache Indian Reservation, brs. N. 70° W. and S 70° E.
- 36.80 Intersect the N. bdy. of the Fort Apache Indian Reservation, 2.42 chs. S. $69^{\circ}51'$ E. of Angle point No. 521, described in Book "B".
- At point of intersection, set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished closing cor. of T. 10 N., Rs. 20 and 21 E., marked on brass cap,
- C C N of center,
T 10 N in N., and
F A I R, 1915 in S. half;
R 20 E in NW.,
S 30 in NE.,
R 21 E in SE., and
S 25 in SW. sector.
- From this point the unaccepted closing cor. of same Tps. set by Deputy Charles E. Perkins, under contract No. 40, brs. N. $69^{\circ}51'$ E., 106 lks. dist., which I destroy, and marks on bearing trees to same.
- 37.05 Top of the Mogollon Rim, brs. N. 70° W. and S. 70° E.; descend broken S. slope, 130 ft., through dense manzanita brush.
- 45.17 (40.12 chs. S. $0^{\circ}14'$ E. of cor. of secs. 19 and 30) Intersect the old $\frac{1}{4}$ sec. cor. hereinbefore described, which I reestablish, in the same place as follows: Reset the same stone, 10 ins. in the ground for $\frac{1}{4}$ sec. cor. of sec. 30, marked $\frac{1}{4}$ S 30 on E. face, from which the original bearing trees,
- A pine stump, 14 ins. in diam., brs. east 50 lks. dist., marked $\frac{1}{4}$ S B T., and
A pine, 14 ins. in diam., brs. S. 71° W., 47 lks. dist., marked $\frac{1}{4}$ S B T.
- Thence,
60.70 S. $0^{\circ}07'$ E., continuing measurement. Dry ravine, 6 lks. wide, course N. 70° W.; ascend NW. slope, 100 ft.
- 79.00 Top of ridge, brs. N. 10° E. and S. 10° W.; descend 40 ft.
- 85.43 Intersect the old cor. of secs. 25, 30, 31 and 31, hereinbefore described.

Resurvey of 5th Guide Mer. E. thru T. 10 N. bet. Rs. 20 & 21 E.

Chains.

Discontinue resurvey of 5th Guide Meridian East in T. 10 N.,
 at this cor.
 Land, mountainous.
 Soil, stony, 3rd and 4th rate.
 Timber, oak, juniper, cedar and pine.

June 14, 1915.

GENERAL DESCRIPTION.

Townships 10 N., Rs. 20 and 21 E., are generally mountainous in the southern parts, and rolling in the northern and northeastern parts. The townships are covered with a good growth of bunch grass and pine timber, some of which is suitable for lumbering purposes. These townships have already been subdivided, and the greater portion of the land, suitable for agricultural purposes in each township, has been settled on.

12. Resurvey of 2nd Standard Per. N. thru part of Range 22 East.

Chains.

Resurvey commenced July 27, 1915, and executed with a Buff light mountain transit No. 9793, described in Book "A."

I examine the adjustments of the transit, and find them to be correct, and from recent tests of the solar apparatus made by comparing the results of observations on the sun during a.m. and p.m. hours, with a meridian established by observations on Polaris, I know that the instrument is in satisfactory adjustment.

For last complete test of instrument, see Book "A."

I begin at the old standard cor. of secs. 35 and 36 on S. bdy. of T. 9 N., R. 22 E. (2nd Std. Parallel North); latitude $34^{\circ}06'N.$; longitude, $109^{\circ}58'37"W.$, which is a malpais stone, with marks almost obliterated. I destroy all trace of this old cor., and reestablish it in the same place as follows:

Set an iron post 3 ft. long 3 ins. in diam., 24 ins. in the ground for standard cor. of secs. 35 and 36, marked on brass cap,

S C T 9 N, R 22 E in N., and
1915 in S. half;

S 35 in NW., and

S 36 in NE. quadrant; from which original

bearing trees:

A pine, 16 ins. in diam., brs. $N.43\frac{1}{2}^{\circ}E.$, 66 lks. dist., marked T 9 N R 22 E S 36 B T., and

A pine, 12 ins. in diam., brs. $N.70\frac{1}{2}^{\circ}W.$, 91 lks. dist., marked T 9 N R 22 E S 35 B T.

July 27, 1915. At 7h. 6.3m. a.m., l.m.t., I set off $34^{\circ}06'N.$ on the lat. arc; $19^{\circ}24\frac{1}{2}'N.$ on the decl. arc, and determine a meridian with the solar at the above described corner.

Thence,

West, on a random line on S. bdy. of sec. 35.

40.14

Fall 16 lks. N. of the old standard $\frac{1}{4}$ sec. cor., which is a sandstone $6x6x2$ ins. above ground, loosely set, marked SC $\frac{1}{4}$ on N. face, and witnessed by the two original bearing trees.

True course and dist. of E. $\frac{1}{2}$ of S. bdy. of sec. 35 is therefore $N.89^{\circ}46'E.$, 40.14 chs.

From old Standard $\frac{1}{4}$ sec. cor., described above,

West, on a random line on W. half of S. bdy. of sec. 35.

39.94

Fall 14 lks. N. of the standard cor. of secs. 34 and 35, which is a sandstone $16x10x6$ ins. above ground, firmly set, marked S C on N., with 2 grooves on E., and 4 grooves on W. faces, from which original bearing trees,

An oak, 12 ins. in diam., brs. $N.52^{\circ}45'E.$, 9 lks. dist., marked T 9 N, R 22 E S 35 B T.

An oak, 12 ins. in diam., brs. $S.21^{\circ}45'W.$, 52 lks. dist., marked T 8 N R 22 E S B T., and

An oak, 6 ins. in diam., brs. $N.48^{\circ}W.$, 10 lks. dist., marked T 9 N R 22 E S 34 B T.

True course and dist. of W. $\frac{1}{2}$ of S. bdy. of sec. 35 is therefore $N.89^{\circ}48'E.$, 39.94 chs.

Thence,

$N.89^{\circ}48'E.$, on a true line, on W. $\frac{1}{2}$ of S. bdy. of sec. 35.

Descend NE slope 5 ft., over stony, mountainous land, through heavy oak and pine timber.

.74

Dry ravine, 8 lks. wide, course $N.70^{\circ}W.$; ascend 103 ft.

8.00

Top of rim of the Mogollon Mesa, brs. $N.10^{\circ}W.$ and $S.10^{\circ}E.$; leave mountainous land, over rolling land, brs. $N.10^{\circ}W.$ and $S.10^{\circ}E.$

39.94

Intersect the old standard $\frac{1}{4}$ sec. cor., hereinbefore described, which I destroy and reestablish in same place as follows:

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for standard $\frac{1}{4}$ sec. cor., marked on brass cap,

S C $\frac{1}{4}$ S 35 in N., and

1915 in S half; from which

A pine, 20 ins. in diam., brs. $N.12^{\circ}45'W.$, 73

Resurvey of 2nd. Standard Par. No. thru part of Range 22 East. 13.

Chains.

- lks. dist., marked S C $\frac{1}{4}$ S 35 B T., and
A dead pine, 22 ins. in diam., brs. S. 49 $\frac{1}{4}$ ° W., 34
lks. dist., marked S C $\frac{1}{4}$ S B T.
 - Establish as new bearing tree:
A pine. 10 ins. in diam., brs. N. 43 $\frac{1}{2}$ ° E., 89 lks.
dist., marked S C $\frac{1}{4}$ S 35 B T.
 - Thence,
N. 89° 46' E., on a true line on E. $\frac{1}{2}$ of S bdy. of sec. 35.
 - 23.36 Wire fence along N. bdy. of Fort Apache Indian Reservation,
brs. N. 30° W. and S. 30° E.
 - 26.99 Intersect the N. bdy. of the Fort Apache Indian Reservation
42 lks. N. 19° 41' W. of Angle Point No. 315, described in
Book "B."
 - At point of intersection,
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for reestablished closing cor. of T. 9 N.,
R. 22 E. marked on brass cap,
C C E of center,
S C T 9 N R 22 E. in N., and
1915 in S., and
FAIR in W. half;
S 35 in NE sector.
 - From this cor., the unaccepted closing cor. of T. 9 N., R.
22 E., set by Deputy Charles E. Perkins, under Contract
No. 40, brs. N. 19° 41' W., 3 lks. dist., which I destroy, and
marks on bearing trees to same.
 - 36.48 Intersect the old closing cor. of secs. 1 and 2 of T. 8 N., R.
22 E., which is a sandstone 12x8x6 ins. above ground,
firmly set, marked and witnessed as described by the
surveyor general.
 - 40.14 Intersect the reestablished standard cor. of secs. 35 and 36,
hereinbefore described.
- Land, rolling and mountainous.
Soil, of the west 8 chs., stony clay loam on stone and clay
subsoil. East 72 chs. medium, rich, fine sandy loam,
about 10 ins. deep on clay subsoil.
Timber, oak, juniper and pine.
Mountainous land, 8.00 chs.

July 27, 1915.

GENERAL DESCRIPTION.

Through Range 22 E., along the South bdy. of sec. 35, this
line runs across the top of the rim of the Mogollon
Mesa for a distance of about 70.00 chs. The west 10.00
chs. crosses mountainous spurs and ravines having a
southwesterly trend.

The land to the south of the line is rolling to the top of
the Mogollon Rim, where it breaks off abruptly into a
rough, mountainous country, poorly watered, but heavily
timbered, with oak, juniper and pine of good quality,
while the land to the north is of a rolling character,
with scattering timber and some prairie land, much of
which is being farmed at the present time.

14. Resurvey of Second Standard Parallel North thru part of R. 24 E. Chains.

Resurvey commenced August 7, 1915, and executed with a Buff light mountain solar transit No. 9793, described in Book "A." with solar attachment.

The horizontal limb being provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the Verniers of the latitude and declination arcs.

I examine the adjustments of the transit, and correct the level and collimation errors; then, in order to test the solar apparatus by comparing its indications, resulting from solar observations made during a.m. and p.m. hours with a meridian established by observations on Polaris, I proceed as follows:

At my camp, which is located at Pearce Spring in the SW. $\frac{1}{4}$ of sec. 30, T. 9 N., R. 25 E.; latitude, $34^{\circ} 07' N.$; longitude, $109^{\circ} 45' W.$

At 10h. 30.5m. p.m., l.m.t., by my watch, which is correct local mean time, I observe Polaris at eastern elongation in accordance with Manual of Instructions, and mark a point in the line thus determined by a nail driven in a stake set firmly in the ground 4 chs. N. of my instrument, this being the greatest distance unobstructed by trees or brush, obtainable at this station.

August 7, 1915.

August 8; At 7 a.m., I lay off the azimuth of Polaris, $1^{\circ} 23'$ to the West, and mark the meridian thus determined by a tally pin driven in a stake set in the ground 4 chs. N. of my instrument.

At 8h. 5 $\frac{1}{2}$ m. a.m., l.m.t., I set off $34^{\circ} 07' N.$ on the lat. arc; $16^{\circ} 21\frac{1}{2}' N.$ on the decl. arc, and determine a meridian with the solar, and mark a point thereof by a nail driven in the stake already set 4 chs. N. of my instrument, on which the solar meridian falls 01' west of the meridian established by the Polaris observation.

At 12h. 5 $\frac{1}{2}$ m. p.m., l.m.t., I set off $16^{\circ} 18\frac{1}{2}' N.$ on the decl. arc; and observe the sun on the meridian, and obtain a reading of $34^{\circ} 7\frac{1}{2}' N.$ on the lat. arc, which is a little higher than the latitude given by the instrument on other days.

At 3h. 5m. p.m., l.m.t., I set off $34^{\circ} 7\frac{1}{2}' N.$ on the lat. arc; $16^{\circ} 16\frac{1}{2}' N.$ on the decl. arc, and determine a meridian with the solar, and mark a point thereof by a nail driven in the stake already set 4 chs. N. of my instrument; this point falls $00\frac{1}{2}' E.$ of the meridian established by the Polaris observation.

The solar apparatus by a.m. and p.m. observations, defines positions for meridians, respectively about 1' W. and $\frac{1}{2}' E.$ of the meridian established by the Polaris observation; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 9h. 30m. a.m. is N. $12^{\circ} 15' W.$; the angle thus determined gives the magnetic decl. $12^{\circ} 15' E.$

A 5 chain steel tape and clinometer are the instruments employed in the determination of all distances measured in this resurvey,

I begin at the old standard cor. of secs. 33 and 34 on S. bdy. of T. 9 N., R. 24 E. (2nd. Standard Parallel N.) which is a malpais stone, 12x12x8 ins., loosely set, faintly marked and witnessed as described by the surveyor general.

This cor. being in a dilapidated condition, I destroy, and

Resurvey of Second Standard Per North thru part of Range 24 East 15

Chains.

reestablish it in same place, as follows:
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for standard cor. of secs. 33 and 34, marked on brass cap,
 S C T 9 N, R 24 E in N., and
 1915 in S half;
 S 33 in NW., and
 S 34 in NE. quadrant; from which the original bearing trees,
 A pine, 14 ins. in diam., brs. N. 43 $\frac{1}{2}$ ° E., 33 lks. dist., marked T 9 N R 24 E S 34 B T.
 The stump of pine, 16 ins. in diam., brs. S. 53° 45' E., 38 lks. dist., marked T 8 N R 24 E S 3 B T., and
 A pine, 20 ins. in diam., brs. N. 15° 45' W., 55 lks. dist., marked T 9 N R 24 E S 33 B T.

August 9, 1915. At this cor., I set off 34° 06' N. on the lat. arc; 16° 04 $\frac{1}{2}$ ' N. on the decl. arc; and at 7h. 5 $\frac{1}{2}$ m. a.m. l.m.t., determine a meridian with the solar.

Thence,
 40.30 West, on a random line on S bdy. of sec. 33.
 Fall 19 lks. S. of the old standard $\frac{1}{4}$ sec. cor., which is a lava stone 14x19x6 ins., loosely set in a mound of stone, marks almost too dim to read, witnessed by the two original bearing trees.
 True course and dist. of E. $\frac{1}{2}$ of S bdy. of sec. 33 is therefore S. 89° 44' E., 40.30 chs.

From old standard $\frac{1}{4}$ sec. cor., described above,
 40.02 West, on a random line on W half of S bdy. of sec. 33.
 Fall 34 lks. N. of the old standard cor. of secs. 32 and 33, which is a malpais stone 12x12x10 ins., loosely set in mound of stone, faintly marked and witnessed as described by the surveyor general.
 True course and dist. of W. $\frac{1}{2}$ of S. bdy. of sec. 33 is therefore N. 89° 31' E., 40.02 chs.
 This old cor. being in a dilapidated condition, I destroy cor., and reestablish it in same place as follows:
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for standard cor. of secs. 32 and 33, marked on brass cap,
 S C T 9 N R 24 E in N., and
 1915 in S. half;
 S 32 in NW., and
 S 33 in NE. quadrant; from which the original bearing trees:
 A pine, 22 ins. in diam., brs. N. 25° E., 45 lks. dist., marked T 9 N R 24 E S 33 B T.
 A pine, 24 ins. in diam., brs. N. 67° W., 52 lks. dist. marked T 9 N R 24 E S 32 B T., and
 A dead pine, 14 ins. in diam., brs. S. 74° E., 20 lks. dist., marked T 8 N R 24 E S 4 B T.

Thence,
 N. 89° 31' E., on a true line on W. $\frac{1}{2}$ of S bdy. of sec. 33.
 Ascend gradually SW. slope, over mountainous land, through heavy pine and oak timber;
 9.00 Foot of Crater peak, 25 ft. above cor., brs. N. and S.; ascend abrupt W. slope, 412 ft.
 39.70 Top of divide in saddle, bet. mountain peaks, brs. N. 45° E. and S. 45° W. Cross wire fence along north bdy. of the Fort Apache Indian Reservation brs. N. 45° E. and S. 45° W.
 40.02 Intersect the old standard $\frac{1}{4}$ sec. cor. hereinbefore described, which I destroy, and reestablish in the same place as follows:
 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for standard $\frac{1}{4}$ sec. cor., marked on brass cap,
 S C $\frac{1}{4}$ S 33 in N., and
 1915 in S. half; from which original bearing trees,
 A pine, 14 ins. in diam., brs. N. 52 $\frac{1}{2}$ ° E., 32 lks. dist., marked $\frac{1}{4}$ S 33 B T., and

16. Resurvey of Second Standard Parallel North thru part of R. 24 E.

Chains.

- A pine, 16 ins. in diam., brs. S. $11^{\circ}E.$, 70 lks. dist., marked $\frac{1}{4}$ S B T.
- Thence,
S. $89^{\circ}44'E.$, on a true line on E. $\frac{1}{2}$ of S. bdy. of sec. 33. Over mountainous land; descend.
- 2.72 Intersect N. bdy. of the Fort Apache Indian Reservation, 2.85 chs. S. $48^{\circ}6'W.$ of the 39 mile mon, described in Book "B."
- At point of intersection,
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for closing cor. of T. 9 N., R. 24 E., marked on brass cap,
C C W of center,
S C T 9 N R 24 E in N., and
FAIR, 1915 in S. half;
S 33 in NW. sector.
- From this cor., the unaccepted closing cor. of T. 9 N., R. 24 E. set by Deputy Charles E. Perkins, under Contract No. 40, brs. N. $48^{\circ}06'E.$, 15 lks. dist., which I destroy, and the marks on the bearing trees to same.
- 27.98 Descend over steep rocky SE. slope of crater peak, 161 ft. Foot of mountain brs. NE. and SW.; thence over rolling, stony land.
- 30.48 Road from Fort Apache to St. Johns, Arizona brs. N. $50^{\circ}E.$ and S. $50^{\circ}W.$ Descend.
- 30.75 Intersect the North bdy. of the Fort Apache Indian Reservation 1.46 chs. N. $51^{\circ}12'W.$ of Angle Point No. 231, in Bk "B."
- At point of intersection,
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for closing cor. of T. 9 N., R. 24 E., marked on brass cap,
C C E of center,
S C T 9 N R 24 E in N., and
FAIR, 1915 in S. half;
S 33 in NE. sector.
- From this cor. the unaccepted closing cor. of T. 9 N.; R. 24 E., set by Deputy Charles E. Perkins, under contract No. 40, brs. S. $51^{\circ}12'E.$, 7 lks. dist. I destroy this cor. and the marks on bearing trees to same.
- 31.30 Wire fence along N. bdy. of the Indian Reservation, brs. N. $53^{\circ}W.$ and S. $53^{\circ}E.$
- 40.30 Intersect the Standard cor. of secs. 33 and 34.
Land, mountainous.
Soil, loose volcanic ash, mixed with clay loam, 3 to 6 ins. deep on clay and stone.
Timber, oak and pine.

August 9, 1915.

August 10, 1915. At 10h. 20m. a.m., l.m.t., I set off $34^{\circ}06'N.$ on the lat. arc; $15^{\circ}45\frac{1}{2}'N.$ on the decl. arc, and determine a meridian with the solar at the reestablished standard cor. of Ts. 9 N., Rs. 24 and 25 E. (hereinafter described.)

- Thence,
West, on a random line on S. bdy. of sec. 36.
- 40.16 Fall 9 lks. S of the old standard $\frac{1}{4}$ sec. cor., which is a malpais stone 12x12x8 ins., loosely set in a mound of stone, marks almost obliterated, witnessed by the two original bearing trees.
True course and dist. of E. $\frac{1}{2}$ of S. bdy. of sec. 36 is therefore S. $89^{\circ}52'E.$, 40.16 chs.
From old standard $\frac{1}{4}$ sec. cor. described above,
West, on a random line on W. $\frac{1}{2}$ of S. bdy. of sec. 36.
- 40.43 Fall 12 lks. N. of the old standard cor. of secs. 35 and 36, which is a lava cinder 12x8x4 ins., loosely set in a mound of stone, marks almost obliterated, witnessed by the three original bearing trees.
True course and dist. of W. $\frac{1}{2}$ of S. bdy. of sec. 36 is therefore N. $89^{\circ}50'E.$, 40.43 chs.

Resurvey of Second Standard Parallel North, thru. part of R. 24 E. 17

Chains

This old cor. being in a dilapidated condition, I destroy and reestablish it in same place as follows:
Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for standard cor. of secs. 35 and 36, marked on brass cap,

S C T 9 N, R 24 E in N., and
1915 in S. half;
S 35 in NW., and
S 36 in NE. quadrant; from which the original

bearing trees,

- A pine, 14 ins. in diam., brs. N. 45 1/2° E., 94 lks. dist., marked T 9 N R 24 E S 36 B T.
- A pine, 14 ins. in diam., brs. S. 37° E., 44 lks. dist., marked T 8 N R 24 E S 1 B T., and
- A pine, 16 ins. in diam., brs. N. 16° W., 89 lks. dist., marked T 9 N R 24 E S 35 B T.

Thence,

N. 89° 50' E., on a true line on W. 1/2 of S bdy. of sec. 36. Descend broken, stony SE. slope, 30 ft. over mountainous land, through heavy pine and aspen timber.

12.23

Center of draw, 50 lks. wide, course S. 50° W.; ascend NW. slope, 15 ft.

35.73

Top of divide between the waters flowing into the Colorado and Salt rivers, brs. N. 80° E. and S. 80° W. Cross wire fence along N. bdy. of the Fort Apache Indian Reservation, brs. N. 79° E. and S. 79° W.; descend SE. slope, 12 ft.

35.95

Intersect the unaccepted closing cor. of Tp. 9 N., R. 24 E., set by Deputy Charles E. Perkins, under Contract No. 40, which I destroy, and marks on bearing trees to same.

35.98

Intersect the North bdy. of the Fort Apache Indian Reservation 3, 21 chs. S. 27° 40' W. of Angle point No. 215, described in Book "B."

At point of intersection,

I set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished closing cor. of Tp. 9 N., R. 24 E., marked on brass cap,

C C W of center,
S C T 9 N, R 24 E in N., and
FAIR, 1915 in S. half;
S 36 in NW. sector.

40.43

Intersect the old standard 1/4 sec. cor., hereinbefore described, which I destroy, and reestablish in same place as follows:

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for standard 1/4 sec. cor., marked on brass cap,

S C 1/4 S 36 in N., and
1915 in S. half; from which the original

bearing trees,

- A pine, 36 ins. in diam., brs. N. 24° E., 30 lks. dist., marked 1/4 S 36 B T. and
- A pine, 16 ins. in diam., brs. S. 62° E., 70 lks. dist., marked 1/4 S B T.

Thence,

S 89° 52' E. on a true line on E. 1/2 of S. bdy. of sec. 36. Over mountainous land.

Ascend W. slope from cor. 15 ft.

9.17

Top of low hills brs. NE and SW.; descend 20 ft.

14.17

Dry ravine, 15 lks. wide, course SW.; ascend 98 ft.

29.07

Top of spur, brs. NE and SW.; descend 63 ft. to cor.

40.16

Intersect the reestablished standard cor. of Ts. 9 N., Rs. 24 and 25 E., hereinafter described.

Land, mountainous.

Soil, stony, 3rd rate.

Timber, pine and aspen.

August 10, 1915.

18. Resurvey of 6th Guide Meridian E., thru part of T. 9 N., bet. Rs 24 & 25 E.

Chains.

Resurvey commenced August 9, 1915, and executed with a Buff light mountain transit No. 9793, with solar attachment, described in Book "A;" the horizontal limb being provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

I examine the adjustments of the transit, and finding them to be correct, I know from recent tests of the solar apparatus, made by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian established by observations on Polaris, that the instrument is in satisfactory adjustment.

For last complete test of instrument, see resurvey of the Second Standard Parallel North, through Range 24 East, hereinbefore described.

A 5 chain steel tape and clinometer are the instruments employed to determine all distances measured in this resurvey.

I begin at the old standard cor. of Ts. 9 N., Rs. 24 and 25 E., which is a malpais stone 12x10x6 ins. above ground, loosely set, marked with 6 grooves on E. and W. faces, witnessed by two of the original bearing trees; latitude, $34^{\circ}06'N.$; longitude, $109^{\circ}45'W.$

I destroy the old cor. and reestablish it in the same place as follows:
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for standard cor. of Ts. 9 N., Rs. 24 and 25 E., marked on brass cap,
 SC, T 9 N in N., and
 1915 in S half;
 R 24 E S 36 in NW., and
 R 25 E S 31 in NE. quadrant; from which
 original bearing trees,
 A pine, 24 ins. in diam., brs. N. $43^{\circ}E.$, 78 lks. dist., marked T 9 N R 25 E-S 31 B T., and
 A pine, 30 ins. in diam., brs. S $62\frac{1}{2}^{\circ}E.$, 100 lks. dist., marked T 8 N R 25 E S 6 B T.

Establish new bearing tree,
 A pine 24 ins. in diam., brs. N. $58\frac{1}{2}^{\circ}W.$, 42 lks. dist., which I mark, T 9 N R 24 E S 36 B T.

August 9, 1915. At 2h. 35.5m. p.m. l.m.t., I set off $34^{\circ}06'N.$ on the lat. arc; $16^{\circ}00'N.$ on the decl. arc, and determine a meridian with the solar at the above described cor.

Thence,
 North, on a random line, bet. secs. 31 and 36.

40.00 No trace of old $\frac{1}{4}$ sec. cor. can be found; therefore set temp. $\frac{1}{4}$ sec. cor.

80.00 The old cor. of secs. 25, 30, 31 and 36 cannot be found after diligent search; therefore, set temp. sec. cor.
 August 9, 1915.

August 10, 1915. At 7h. 5.5m. a.m. l.m.t., I set off $34^{\circ}07'N.$ on the lat. arc; $15^{\circ}59'N.$ on the decl. arc, and determine a meridian with the solar at the temp. cor.

Continue line and measurement, bet. secs. 25 and 30.

120.00 I make diligent search for the old $\frac{1}{4}$ sec. cor., which I fail to find; therefore, set temp. $\frac{1}{4}$ sec. cor.

160.54 Fall 5 lks. W. of the old cor. of secs. 19, 24, 25 and 30, which is a malpais stone 10x6x4 ins. above ground, loosely set in a mound of stone, marks almost obliterated, witnessed by the four original bearing trees.

True course and dist. of line back to Tp. cor. is therefore $S.0^{\circ}1'W.$, 160.54 chs., making the true course and dist. for line bet. secs. 25 and 30, and bet. 31 and 36 $S.0^{\circ}1'W.$, 80.27 chs. for each.

The old sec. cor. being in a dilapidated condition, I destroy and reestablish it in the same place as follows:
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, marked on brass cap,

Resurvey of 6th Guide Mer. E. thru part of T. 9 N. bet. Rs. 24 & 25 E. 19

Chains.

- T 9 N in N.,
1915 in S. half;
R 24 E S 24 in NW.,
R 25 E S 19 in NE.,
S 30 in SE., and
S 25 in SW. quadrant; from which original bearing trees,
- An oak, 10 ins. in diam., brs. N. $54\frac{1}{2}^{\circ}$ E., 50 lks. dist., marks nearly decayed away.
A pine, 36 ins. in diam., brs. S. 45° E., 128 lks. dist., marked T 9 N R 25 E S 30 B T.
An oak, 12 ins. in diam., brs. S. $80\frac{1}{2}^{\circ}$ W., 44 lks. dist., marks almost decayed away.
A pine, 24 ins. in diam., brs. N. $54\frac{1}{2}^{\circ}$ W., 44 lks. dist., marked T 9 N R 24 E S 24 B T.
- Establish as new bearing trees,
A pine, 14 ins. in diam., brs. N. $73\frac{3}{4}^{\circ}$ E., 87 lks. dist., which I mark T 9 N R 25 E S 19 B T.
A pine, 26 ins. in diam., brs. S. 64° W., 97 lks. dist., which I mark T 9 N R 24 E S 25 B T.
- August 10, 1915.
August 11, 1915. At 7h. 20.2m. a.m., l.m.t., I set off $34^{\circ} 08' N.$, on the lat. arc; $15^{\circ} 30\frac{1}{2}' N.$ on the decl. arc, and determine a meridian with the solar at the reestablished cor. of secs. 19, 24, 25 and 30, described above. Thence,
S $0^{\circ} 01' W.$ on a true line, bet. secs. 25 and 30.
- Ascend NW slope of spur, 10 ft., over stony, mountainous land, through oak and pine timber and brush.
- 2.50 Top of spur, brs. N. $60^{\circ} W.$ and S $60^{\circ} E.$; descend SW slope, 29 ft.
- 40.13 $\frac{1}{2}$ Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 25 in W.,
S 30 in E., and
1915 in S half; from which
A pine, 18 ins. in diam., brs. S. $73\frac{1}{2}^{\circ}$ E., 163 lks. dist., which I mark $\frac{1}{4}$ S 30 B T., and
A pine 30 ins. in diam., brs. N. $10^{\circ} W.$, 80 lks. dist., which I mark $\frac{1}{4}$ S 25 B T.
- From this cor., the unaccepted $\frac{1}{4}$ sec. cor. set by Deputy Charles E Perkins, under Contract No. 40, brs. S 18 lks. dist., which I destroy, and marks on bearing trees to same.
- 47.50 Bottom of ravine, 20 lks. wide, 10 ft. below cor., course N. $70^{\circ} W.$; ascend 26 ft.
- 49.04 Telephone line from the Cienega Los Burros Forest ranger station to St. Johns and Springerville, Arizona, brs. N. $60^{\circ} W.$ and S. $60^{\circ} E.$
- 49.54 Top of spur, brs. N. $70^{\circ} W.$ and S $70^{\circ} E.$; descend SW slope, 33 ft.
- 56.54 Foot of descent in ravine from Pearce Spring, 15 lks. wide, course N. $70^{\circ} W.$; ascend NE. slope, 75 ft.
- 58.25 Trail to Pearce Spring, brs. N. $60^{\circ} W.$ and S $60^{\circ} E.$
- 72.55 Top of spur, brs. N. $70^{\circ} W.$; descend 15 ft.
- 75.55 Head of dry ravine, 20 lks. wide, course N. $50^{\circ} W.$; ascend 88 ft. over NW. slope of Pearce Spring mountain.
- 80.27 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished cor. of secs. 25, 30, 31 and 36, marked on brass cap,
T 9 N in N., and
1915 in S. half;
R 24 E, S 25 in NW.,
R 25 E S 30 in NE.,
S 31 in SE., and
S 36 in SW. quadrant; from which,
A pine, 8 ins. in diam., brs. N. $65\frac{1}{2}^{\circ}$ E., 158 lks. dist., which I mark, T 9 N R 25 E S 30 B T.

20. Resurvey 6th Guide Mer. E. thru part of T. 9 N. bet. Rs. 24 & 25 E. Chains.

- A pine, 14 ins. in diam., brs. S. $72\frac{3}{4}^{\circ}$ E., 30 lks. dist., which I mark, E 9 N R 25 E S 31 B T.
 A fir, 12 ins. in diam., brs. S. $78\frac{1}{4}^{\circ}$ W., 37 lks. dist., which I mark T 9 N R 24 E S 36 B T.
 A pine, 10 ins. in diam., brs. N. $8\frac{1}{2}^{\circ}$ W., 25 lks. dist., which I mark T 9 N R 24 E S 25 B T.
 From this cor., the unaccepted cor. of same secs., set by Deputy Charles E. Perkins, under contract No. 40, brs. S. 45° E., 16 lks. dist., which I destroy, and marks on bearing trees to same.
 Land, mountainous.
 Soil, stony, 3rd and 4th rate.
 Timber, aspen, fir and pine.
 Good growth bunch grass.
-
- S. 0° 1' W., on a true line, bet. secs. 31 and 36.
 Ascend NW. slope, of Pearce Spring Mountain, .174 ft., through aspen, fir and pine timber and brush.
- 12.00 Top of ridge, brs. west; descend over SW. slope, 105 ft.
 26.70 Head of dry ravine, course N. 70° W.; ascend 20 ft.
 31.00 Top of spur brs. E. and W.; descend 22 ft.
 38.00 Center of draw. 50 lks. wide, course west; thence ascend gradually over rolling, stony land.
- 40.13 $\frac{1}{2}$ Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 36 in W.,
 $\frac{1}{4}$ S 31 in E., and
 1915 in S. half; from which
 A pine, 26 ins. in diam., brs. S. 47° E., 91 lks. dist., which I mark $\frac{1}{4}$ S 31 B T.
 A pine, 26 ins. in diam., brs. S. $84\frac{1}{2}^{\circ}$ W., 129 lks. dist., which I mark $\frac{1}{4}$ S 36 B T.
 From this cor., the unaccepted $\frac{1}{4}$ sec. cor. set by Deputy Charles E. Perkins, under contract No. 40, brs. N. $31\frac{1}{2}^{\circ}$ E., 19 lks. dist., which I destroy, and marks on bearing trees to same.
- 66.52 Wire fence along N. bdy. of the Fort Apache Indian Reservation, brs. N. 47° E. and S. 47° W. on top, of the divide between the head waters of the Salt and Little Colorado rivers, brs. NE. and SW.; descend.
- 66.54 Intersect the N. bdy. of the Fort Apache Indian Reservation 1.87 chs. N. 47° 55' E. of the 35 mile mon., described in Book "B."
 At point of intersection,
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished closing cor. of Ts. 9 N., Rs. 24 and 25 E., marked on brass cap,
 C C N of center,
 T 9 N in N., and
 1915 in S. half;
 R 24 E in NW.,
 S 31 in NE.,
 R 25 E in SE., and
 S 36 in SW. sector.
 From this cor., the unaccepted closing cor. of same Tps. set by Deputy Charles E. Perkins, under Contract No. 40, brs. N. 47° 55' E., 17 lks. dist., which I destroy, and marks on bearing trees to same.
- 80.27 Descend S-slope of divide 78 ft.
 Intersect the reestablished standard cor. of Ts. 9 S., Rs. 24 and 25 E., hereinbefore described.
 At this cor., I set off 15° 26 $\frac{1}{2}$ ' N., on the decl. arc, and at noon, apparent time August 11, 1915, observe the sun on the meridian; the lat. is 34° 07' N.
 Land, mountainous.
 Soil, poor, dry stony clay loam, 3rd and 4th rate.
 Timber, aspen, fir and pine.

August 11, 1915.

GENERAL DESCRIPTION.

Townships 9. N., Ranges 24 and 25 East are generally rolling mountainous land, covered with an abundant growth of pine timber and grass. There are several large ciene-gas in different parts of these townships, the land of which is very good.

These townships have already been subdivided.

22. Resurvey of 2nd Standard Par. N., through Range 25 East.

Chains.

Resurvey commenced August 11, 1915, and executed with a Buff light mountain solar transit No. 9793, described in Book "A."

I examine the adjustments of the transit, and find them to be correct, and know from recent tests of the solar apparatus by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian established by observations on Polaris that the instrument is in satisfactory adjustment.

For last complete test of instrument see the Resurvey of the Second Standard Parallel North, through Range 24 E., hereinbefore described.

A 5 chain steel tape and clinometer are the instruments employed in the determination of all distances measured in this resurvey.

At 1h. 35m. p.m., l.m.t., Aug. 11, I set off $34^{\circ}6'N.$ on the lat. arc; $15^{\circ}25\frac{1}{2}'N.$ on the decl. arc, and determine a meridian with the solar at the reestablished standard cor. of Ts. 9 N., Rs. 24 and 25 E., hereinbefore described.

Thence,

East, on a random line, on S. bdy. of sec. 31.

40.25 Fall 13 lks. S. of the true point for the old standard $\frac{1}{4}$ sec. cor., which I locate S. $62^{\circ}E.$, 82 lks. dist., from the original NE. bearing tree. No trace can be found of the original SW. bearing tree.

True course and dist. of W. $\frac{1}{2}$ of S. bdy. of sec. 31 is therefore S $89^{\circ}49'W.$, 40.25 chs.

From standard $\frac{1}{4}$ sec. cor. point described above,

East, on a random line on E. $\frac{1}{2}$ of S. bdy. of sec. 31.

40.33 Fall 7 lks. S. of the old standard cor. of secs. 31 and 32, which is a pine post 3 ins. sq., 24 ins. long, greatly decayed marks almost obliterated, witnessed by the three original bearing trees.

True course and dist. of E. $\frac{1}{2}$ of S. bdy. of sec. 31 is therefore S $89^{\circ}54'W.$, 40.33 chs.

This cor. being in a dilapidated condition, I destroy and reestablish it in same place as follows:

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for standard cor. of secs. 31 and 32, marked on brass cap,

S C T 9 N, R 25 E in N., and

1915 in S-half;

S 31 in NW., and

S 32 in NE. quadrant; from which the original bearing trees,

A pine, 14 ins. in diam., brs. N. $7\frac{1}{2}^{\circ}E.$, 66 lks. dist., marked T 9 N R 25 E S 32 B T.

A pine, 16 ins. in diam., brs. S. $18^{\circ}45'E.$, 43 lks. dist., marked T 8 N R 25 E S 5 B T., and

A pine, 12 ins. in diam., brs. N. $65^{\circ}W.$, 68 lks. dist., marked T 9 N R 25 E S 31 B T. This tree is dead.

A pine, 12 ins. in diam., brs. N. $39\frac{1}{2}^{\circ}W.$, 22 lks. dist., marked T 9 N R 25 E S 31 B T.

This cor. is situated on the E. slope of the Cerro Gordo mountain, 75 ft. below top.

Thence,

S $89^{\circ}54'W.$, on a true line on E. $\frac{1}{2}$ of S. bdy. of sec. 31.

Ascend E. slope of the Cerro Gordo Mountain, 75 ft., over stony land, through pine timber.

5.43 Summit of mountain, elevation 8790 ft., brs. NW.; descend 769 ft. to

40.33 Intersect the point formerly occupied by old standard $\frac{1}{4}$ sec. cor., hereinbefore described, at which point I reestablished the $\frac{1}{4}$ sec. cor., as follows:

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for standard $\frac{1}{4}$ sec. cor., marked on brass cap

S C $\frac{1}{4}$ S 31 in N., and

1915 in S-half; from which original bearing

tree,

A pine, 12 ins. in diam., brs. N. $62^{\circ}E.$, 82 lks. dist., marked $\frac{1}{4}$ S 31 B T. Establish as new

Resurvey of Second Standard Parallel North, thru Range 25 East. 23

Chains.

bearing tree,
A pine, 12 ins. in diam., brs. N. $7\frac{1}{2}^{\circ}$ W., 183 lks. dist., which I mark $\frac{1}{4}$ S 31 B T.

Thence,
S. $89^{\circ}49'W.$, on a true line, on W. $\frac{1}{2}$ of S bdy. of sec. 31.
Over mountainous land.
Descend W slope, 225 ft.

26.05 Dry ravine, 5 lks. wide, at foot of descent on W. side of Cerro Gordo Mountain, course S $40^{\circ}W.$; ascend SE. slope of spur, 12 ft., brs. S. $40^{\circ}W.$; descend NW slope, 10 ft.

40.25 Intersect the reestablished standard cor. of Ts. 9 S., Rs. 24 and 25 E., hereinbefore described.

Land, rough mountains.
Soil, adobe, clay loam and volcanic ash, 6 to 8 ins. deep on dry clay subsoil and lava stone.
Timber, pine and fir.

August 11, 1915.

August 12, 1915. At 7h. 20m. a.m., l.m.t., I set off $34^{\circ}06'N.$ on the lat. arc; $15^{\circ}13'N.$ on the decl. arc, and determine a meridian with the solar at the reestablished standard cor. of secs. 31 and 32, hereinbefore described.

Thence I run,
East, on a random line on S bdy. of sec. 32.

39.45 Fall 13 lks. S. of the true point for reestablishment of Standard $\frac{1}{4}$ sec. cor., which I locate N. $58^{\circ}W.$, 188 lks. dist., from the original bearing tree.

True course and dist. of W. $\frac{1}{2}$ of S bdy. of sec. 32 is therefore S. $89^{\circ}49'W.$, 39.45 chs.

From point for standard $\frac{1}{4}$ sec. cor. described above,
East, on a random line on E. $\frac{1}{2}$ of S. bdy. of sec. 32.

40.43 Fall 22 lks. S of the old standard cor. of secs. 32 and 33, which is a malpais stone 12x19x8 ins., loosely set in a mound of stone, marks almost obliterated, witnessed by two of the original bearing trees.

True course and dist. of E. $\frac{1}{2}$ of S. bdy. of sec. 32 is therefore S $89^{\circ}41'W.$, 40.43 chs.

I destroy this old cor., and reestablish it in the same place as follows:

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for standard cor. of secs. 32 and 33, marked on brass cap,

S C T 9 N, R 25 E in N., and
1915 in S half;

S 32 in NW., and

S 33 in NE. quadrant; from which original bearing trees,

A pine, 16 ins. in diam., brs. N. $67\frac{1}{2}^{\circ}E.$, 42 lks. dist., marked T 9 N R 25 E S 33 B T. and

A pine, 16 ins. in diam., brs. S. $68\frac{1}{2}^{\circ}E.$, 38 lks. dist., marked T 8 N R 25 E S 4 B T.

Establish as new bearing trees:

An aspen, 10 ins. in diam., brs. N. $34\frac{1}{2}^{\circ}W.$, 72 lks. dist., which I mark T 9 N R 25 E S 32 B T.

A fir, 12 ins. in diam., brs. N. $49\frac{1}{2}^{\circ}W.$, 78 lks. dist., which I mark T 9 N R 25 E S 32 B T.

Thence,
S. $89^{\circ}41'W.$, on a true line, on E. $\frac{1}{2}$ of S. bdy. of sec. 32.

Descend W. slope, over stony, mountainous land, through heavy pine and aspen timber and brush, 131 ft.

36.40 Leave timber and brush, brs. N. $30^{\circ}E.$ and S. $50^{\circ}W.$. Enter meadow land, brs. N. $30^{\circ}E.$, about 50 chs., and S. $50^{\circ}W.$, 60 chs.

40.43 Intersect the point of former location of standard $\frac{1}{4}$ sec. cor., at which point, I reestablish the cor. as follows:

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for standard $\frac{1}{4}$ sec. cor., marked on brass

24. Resurvey of Second Stand, Par. North, thru Range 25 East.

Chains.	
	<p>cap, S C $\frac{1}{4}$ S 32 in N., and 1915 in S. half; from which original bearing tree, A pine, 30 ins. in diam., brs. S. $58^{\circ}E.$, 188 lks. dist., marked $\frac{1}{4}$ S 5 B T. Establish as new bearing trees, A pine, 36 ins. in diam., brs. N. $74\frac{1}{2}^{\circ}E.$, 295 lks. dist., which I mark S C $\frac{1}{4}$ S 32 B T.</p> <p>Thence, S $89^{\circ}49'W.$, on a true line on W. $\frac{1}{2}$ of S bdy. of sec. 32. Over mountainous land; descend.</p>
1.95	Dry bed of creek, 12 lks. wide, course S. $10^{\circ}W.$, ascend gradually 10 ft.
2.71	Old road brs. N. $10^{\circ}E.$ and S. $10^{\circ}W.$
5.75	Foot of Cerro Gordo Mountain brs. N. $10^{\circ}E.$ and S. $40^{\circ}W.$ Leave meadow land; enter heavy pine and fir timber, brs. N. and S. Ascend steep E. slope of mountain, 792 ft.
39.45	Intersect the reestablished standard cor. of secs. 31 and 32, hereinbefore described. Land, mountainous. Soil, of the mountainous land poor, stony clay loam, underlaid with malpais stone; soil of the meadow land, rich black loam, mixed with volcanic ash, 12 to 18 ins. deep. Timber, aspen, fir and pine.
40.57	<p>From reestablished standard cor. of secs. 32 and 33, East, on a random line on S bdy. of sec. 33. Fall 30 lks. S. of the old standard $\frac{1}{4}$ sec. cor., which is a malpais stone 14x12x8 ins., loosely set in a small mound of stone, marks almost obliterated, witnessed by the two original bearing trees. True course and dist. of west half of S. bdy. of sec. 33 is therefore S. $89^{\circ}35'W.$, 40.57 chs. From old standard $\frac{1}{4}$ sec. cor. described above, East, on a random line on E $\frac{1}{2}$ of S. bdy. of sec. 33.</p>
40.54	<p>Fall 13 lks. S. of the old standard cor. of secs. 33 and 34, which is a limestone 24x16x10 ins., loosely set, marks almost obliterated, witnessed by one of the original bearing trees. True course and dist. of E. $\frac{1}{2}$ of S bdy. of sec. 33 is therefore S. $89^{\circ}49'W.$, 40.54 chs. This cor. being in a dilapidated condition, I reestablish it in the same place as follows: Reset the same stone, 18 ins. in the ground for standard cor. of secs. 33 and 34, marked S C on N. face, with 3 grooves on E. and W. faces, from which original bearing tree, An aspen, 18 ins. in diam., brs. S. $58^{\circ}45'W.$, 53 lks. dist., marked T 8 N R 25 E S 4 B T. Establish as new bearing trees, A pine, 14 ins. in diam., brs. N. $42\frac{1}{2}^{\circ}W.$, 143 lks dist., which I mark T 9 N R 25 E S 33 B T. A pine, 24 ins. in diam., brs. N. $68^{\circ}45'E.$, 237 lks. dist., which I mark T 9 N R 25 E S 34 B T.</p> <p>Thence, S $89^{\circ}49'W.$, on a true line, on E. $\frac{1}{2}$ of S bdy. of sec. 33. Over rolling, stony land in cienega, through pine and aspen timber.</p>
1.50	Leave Cienega, brs. N. and S., over rolling land.
4.79	A point 6 lks. S. of spring.
26.15	Descend NW slope, 54 ft., over mountainous land.
40.54	Intersect the old standard $\frac{1}{4}$ sec. cor., hereinbefore described, which I destroy, and reestablish in the same place, as follows: Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for standard $\frac{1}{4}$ sec. cor., marked on brass cap, S C $\frac{1}{4}$ S 33 in N., and

Chains.

1915 on S half; from which the original bearing trees,

A fir, 15 ins. in diam., brs. N. 46 1/2° E., 12 lks. dist., marked S C 1/4 S 33 B T., and

A fir, 26 ins. in diam., brs. S 70° W., marked S C 1/4 S B T.

Thence,

S 89° 35' W., on a true line, on W. 1/2 of S. bdy. of sec. 33. Over rolling land.

Descend 33 ft.

20.71 Dry ravine, 15 lks. wide, course N. 10° W.; ascend 15 ft.

24.56 Top of spur, brs. N. and S.; descend 63 ft.

40.57 Intersect the reestablished standard cor. of secs. 32 and 33, hereinbefore described.

Land, rolling and mountainous.

Soil, stony, clay loam 3 to 8 ins. deep on dry clay sub-soil and lava cinders.

Timber, aspen, fir and pine.

Mountainous land, 54.96 chs.

August 12, 1915.

August 23, 1915. At lh. 17.7m. p.m., l.m.t., I set off 34° 06' N. on the lat. arc; 11° 37' N., on the decl. arc, and determine a meridian with the solar at the reestablished standard cor. of secs. 33 and 34, hereinbefore described.

Thence,

East, on a random line, on S bdy. of sec. 34.

40.00 I make a diligent search for the old standard 1/4 sec. cor., but am unable to find any trace of the cor. or the old bearing trees; therefore, continue line and measurement.

80.64 Fall 53 lks. S. of the old standard cor. of secs. 34 and 35, which is a volcanic stone 10x10x10 ins. loosely set, marks almost too dim to read, witnessed by two of the original bearing trees.

True course and dist. of S. bdy. of sec. 34 is therefore S. 89° 37' W., 80.64 chs.

I destroy this cor., and reestablish it in the same place as follows:

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for standard cor. of secs. 34 and 35, marked on brass cap,

S C T 9 N R 25 E in N., and

1915 in S. half;

S 34 in NW., and

S 35 in NE. quadrant; from which original

bearing trees,

An aspen, 12 ins. in diam., dead, brs. N. 12° E., 12 lks. dist., marked T 9 N R 25 E S 35 B T.,

A pine, 20 ins. in diam., brs. S. 33 1/2° E., 73 lks. dist., marked T 8 N R 25 E S 2 B T.

Establish as new bearing trees,

An aspen, 8 ins. in diam., brs. N. 33° E., 25 lks. dist., which I mark T 9 N R 25 E S 35 B T.,

An aspen, 10 ins. in diam., brs. N. 61° 45' W., 109 lks. dist., which I mark T 9 N R 25 E S 34 B T.

Thence S. 89° 37' W., on true line, on S. bdy. of sec. 34.

Ascend E. slope of mountain peak, 36 ft., over volcanic cinders, through heavy pine and aspen timber.

2.65 Top of mountain, brs. N. 10° E. & S. 10° W.; desc. over SW. slope, 151 ft.

11.32 Dry ravine, 5 lks. wide, course S. 10° W.; ascend SE. slope, 30 ft.

15.64 Top of ridge, brs. NE. and SW.; descend NW. slope, 379 ft.

40.32 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished standard 1/4 sec. cor., marked on brass cap,

S C 1/4 S 34 in N., and

1915 in S. half; from which

26. Resurvey of Second Stand. Par. North, thru. Range 25 East.

chains.

- An aspen, 18 ins. in diam., brs. N. $61\frac{1}{2}^{\circ}$ E., 106 lks. dist., which I mark S C $\frac{1}{4}$ S 34 B T., and
 A pine, 36 ins. in diam., brs. S. 53° W., 159 lks. dist., which I mark S C $\frac{1}{4}$ S B T.
- 41.65 Dry ravine, 25 lks. wide, course N. 60° W.; ascend NE. slope. 20 ft.
- 43.65 Top of spur, brs. N. 60° W. and S. 60° E.; descend SW. slope, 140 ft.
- 77.85 Foot of descent; leave mountainous land, brs. N. and S.
 Enter rolling land in cienega, brs. N. and S.
- 80.64 Intersect reestablished standard cor. of secs. 33 and 34, hereinbefore described.
 Land, rolling and mountainous.
 Soil, stony, 3rd rate.
 Timber, aspen, fir and pine.
 Mountainous land, 77.85 chs.

August 23, 1915.

August 24, 1915. At 7h. $32\frac{1}{2}$ m. a.m., l.m.t., I set off $34^{\circ} 06'$ N. on the lat. arc; $11^{\circ} 22\frac{1}{2}'$ N. on the decl. arc, and determine a meridian with the solar at the reestablished standard cor. of secs. 34 and 35, hereinbefore described.

Thence,

- 40.00 East, on a random line, on S. bdy. of sec. 35.
 I make diligent search for the old standard $\frac{1}{4}$ sec. cor., which I fail to find; therefore, continue line and measurement.
- 80.90 Fall 16 lks. S. of the old standard cor. of secs. 35 and 36, which is a lava cinder $10 \times 10 \times 4$ ins., loosely set in a mound of stone, marked with
 S C on N.,
 1 notch on E. and
 5 notches on W. edges, witnessed by the
 3 original bearing trees.
 True course and dist. of S. bdy. of sec. 35 is therefore S. $89^{\circ} 53'$ W., 80.90 chs.
 I destroy all trace of the old cor., and reestablish it in the same place, as follows:
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for standard cor. of secs. 35 and 36, marked on brass cap,
 S C T 9 N R 25 E in N., and
 1915 in S. half;
 S 35 in NW, and
 S 36 in NE. quadrant; from the original bearing trees,
 A pine, 14 ins. in diam., brs. N. 55° E., 26 lks. dist., marked T 9 N R 25 E S 36 B T.
 A pine, 12 ins. in diam., brs. S. 31° E., 52 lks. dist., marked T 8 N R 25 E S 1 B T., and
 A pine, 12 ins. in diam., brs. N. $18\frac{1}{2}^{\circ}$ W., 22 lks. dist., marked T 9 N R 25 E S 35 B T.
 Thence S. $89^{\circ} 53'$ W., on a true line, on S. bdy. of sec. 35.
 Ascend SE. slope, over mountainous land, through heavy pine and fir timber.
- 8.27 Intersect N. bdy. of the Fort Apache Indian Reservation, 5.37 chs. N. $47^{\circ} 52'$ E. of Angle Point No. 147, described in Book "B."
 At point of intersection,
 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for closing cor. of Tp. 9 N., R. 25 E., marked on brass cap,
 C C E. of center,
 S C T 9 N R 25 E in N.,
 1915 in S, and
 FAIR in W. half;
 S 35 in NE. sector.
- From this cor., the unaccepted closing cor. of Tp. 9 N., R.

Resurvey of Second Standard Par. North thru Range 25 East. 27

Chains,	25 E., set by Deputy Charles E Perkins, under Contract No.40, brs.S 47°52'W., 4 lks.dist., which I destroy, and marks on bearing trees to same.
8.90	Top of divide, between waters flowing into the Salt and Little Colorado rivers, 15 ft. above standard cor.of secs.35 and 36 brs.N.50°E. and S.50°W.; descend over NW. slope, 60 ft.
17.90	Trail from Pearce Spring to the "CC" Flat brs.N.50°W.and S.40°E.
21.00	Leave timber, brs.N. and S.30°W. Leave mountainous land, brs.N.and S.; enter cienega, brs.N.and S.
39.40	Lowest point in cienega, drains to the N.; ascend gradually.
40.45	Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for reestablished standard $\frac{1}{4}$ sec.cor., marked on brass cap, S C $\frac{1}{4}$ S 35 in N., and 1915 in S.half; dig pits 18x18x12 ins., E.and W. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N.of cor.
43.20	Old hay road, brs.N.10°E. and S 10°W.
45.40	West side of cienega; leave rolling, sandy land, brs.N. 20°E. and S. Enter mountainous land, and heavy pine and aspen timber, brs.N. and S.; ascend steep E.slope of mount, in 402 ft.
80.90	Intersect the reestablished standard cor. of secs.34 and 35, hereinbefore described. Land, rolling and mountainous. Soil of the mountainous land, poor, dry stony loam on volcanic cinder beds. Soil of the rolling land in the cienega, rich black, sandy loam, about 1 ft. deep on moist clay subsoil. Timber, aspen, fir and pine. Good grass. Mountainous land, 56.50 chs.

40.00	From reestablished standard cor. of secs.35 and 36, East, on a random line on S. bdy.of sec.36. I make a diligent search for the old standard $\frac{1}{4}$ sec.cor., but am unable to find any trace of it; therefore, continue line and measurement.
80.04	Fall 17 lks.S. of the old standard cor.of Ts.9 N.,Rs.25 and 26 E., which is a malpais stone 16x10x8 ins., loosely set in a mound of stone, marks almost too dim to read. No cor.accessories visible. I destroy and reestablish this cor. in same place, as follows: Set an iron post 3 ft. long 3 ins. in diam., 24 ins. in the ground for standard cor.of Ts. 9 N.,Rs. 25 and 26 E., marked on brass cap, S C T 9 N in N., and 1915 in S.half; R 25 E S 36 in NW., and R 26 E S 31 in NE. quadrant. No trees within limits; raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor. Pits impracticable. True course and dist.of S bdy.of sec.36 is therefore S.89° 53' W., 80.04 chs. At this cor., I set off 11°18'N. on the decl.arc, and at noon, apparent time Aug.24, 1915, observe the sun on the meridian, and obtain a reading of 34°06' plus, on the lat.arc. Thence, S 89°53'W., on a true line, on S bdy. of sec.36. Over rolling, stony land, through heavy bunch grass. Road from Fort Apache to St.Johns, Arizona, brs.N.and S.
.94	Road from Fort Apache to St.Johns, Arizona, brs.N.and S.
3.74	Branch of Silver Creek, 10 lks.wide, 3 ft.deep, course N. 10°W.
8.00	Enter scattering pine timber, brs.N.and S. Ascend E.slope of hill, 14 ft.

28. Resurvey of Second Standard Par. North. thru Range 25 East.

- Chains.
- 12.00 Top of hill, brs. N. and S.; descend 19 ft.
- 17.00 Leave timber, brs. N. 30° E. and S.
- 21.75 Foot of gradual descent from hill. Enter the "CC Flat," brs. N. 10° E. and S. 20° W.
- 24.87 Telephone line from the Cienega Los Burros ranger station to St. Johns and Springerville, Arizona, brs. N. 40° W. and S. 40° E.
- 40.02 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished standard $\frac{1}{4}$ sec. cor., marked on brass cap,
S. C. $\frac{1}{4}$ S 36 in N., and
1915 in S. half;
raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.
Pits impracticable.
- 43.04 Dry bed of Silver Creek, 15 lks. wide, course N., banks 3 ft. high.
- 44.00 Leave the "CC Flat" brs. N. 40° E. and S. 40° W. Enter mountainous land, brs. NE. and SW. Ascend SE. slope, 82 ft.
- 53.00 Enter pine timber, brs. S. 30° W. and N. 40° E.
- 60.00 A lake with an area of about 10 acres brs. S., about 20 chs. dist.
- 80.04 Intersect the reestablish standard cor. of secs. 35 and 36 hereinbefore described.
Land, rolling, level and mountainous.
Soil, dry, stony clay loam, 3 to 12 ins. deep on dry clay and stone subsoil.
Timber, pine and fir.
Good growth bunch grass.
Mountainous land, 36.04 chs.

August 24, 1915.

GENERAL DESCRIPTION.

This line, through R. 25 E., runs across a high mountainous country, following closely the divide between the head waters of the Salt and Little Colorado rivers, which it crosses near the standard cor. of secs. 35 and 36; the mountain ridges and ravines have a south-westerly trend. The land south of the line is generally mountainous, well timbered with a good quality of pine and fir suitable for lumbering purposes, besides the other varieties, such as oak and aspen, which has no special commercial value, and well watered by White river, and the small streams which flow into it from the north.

The land to the north of the line is rough and mountainous, well timbered with pine and fir suitable for lumbering purposes, besides small groves of aspen and juniper; there is very little water in the adjoining township except during the rainy seasons.

FOR LIST OF FIELD ASSISTANTS SEE BOOK "A"

CERTIFICATE OF UNITED STATES SURVEYOR.

BOOK 1170

I, Sidney E. Blout, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U.S. Surveyor General for Arizona for Group No.40, bearing date of the 16th day of December, 1914, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, retraced or resurveyed all those parts or portions of the

GILA AND SALT RIVER AND MERIDIAN, IN T.1 N.,
5TH. GUIDE MERIDIAN EAST, IN T.10 N.,
6TH. GUIDE MERIDIAN EAST, IN T.9 N., AND THE
2ND. STANDARD PARALLEL NORTH, IN RS.22, 24, & 25 EAST,

of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes, as having been executed by me, and under my direction; and that all the corners of said retracement and resurvey have been reestablished and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U.S. Surveyor General for Group No.40, Arizona, and in the specific manner described in the field notes, and that the foregoing retracements and resurveys are the original field notes of such retracement and resurvey.

Subscribed at Phoenix, Arizona, on
January 24, 1916, by _____

Sidney E. Blout
U. S. Surveyor.

A P P R O V A L .

Office of the United States Surveyor General,

Phoenix Arizona Sept. 19 1917.

The foregoing field notes of the retracement and resurvey of the
GILA AND SALT RIVER MERIDIAN,
through part of T.1 N., bet. Rs.1 E. and 1 W.,
FIFTH GUIDE MERIDIAN EAST, THRU. T.10 N., bet. Rs.20 & 21 E.,
and Resurvey of the
SECOND STANDARD PARALLEL NORTH, thru. R.25 R., & parts of
Rs.22 and 24 East, and the
6TH. GUIDE MERIDIAN EAST, THRU. PART OF T.9 N., BET. RS.24 &
25 E.,

of the Gila and Salt River Base and Meridian, in the State of Arizona, executed by Sidney E. Blout, U. S. Surveyor, under his special instructions dated December 16, 1914, for Group No.40, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements and resurveys they describe, are hereby approved.

Frank D. Frost
U. S. Surveyor General.

~~I certify that the foregoing transcript of the field notes of the above described surveys in Book "C" has been correctly copied from the original notes on file in this office.~~